

DIRECT RESISTANCE MEASUREMENT CORROSION PROBE

Abstract

A direct resistance measurement probe for measuring corrosion levels an material loss includes a hollow body, a resistive element having one surface exposed to the environment, an internal or external power source electrically connected to the resistive element, a meter for measuring the electrical resistance of the resistive element, a temperature sensing device for measuring the temperature of the resistive element; an optional device for measuring pressure; a memory for storing resistance and temperature data; and control means for applying an electric current across the resistive element, receiving the output data of the resistance meter, receiving the output data of the temperature sensing device, and storing said data into the memory. The probe does not use a comparative or ratiometric reference element.